D3 Workshop Series Resources

We hope the workshops were useful for you. We understand that the short duration of the workshops might not have been sufficient time to have fully explored the technologies introduced, so here we have included a few resources that will help you develop your knowledge base further and continue learning. Please note that this handbook is shared with all attendees of both parts of the workshop series, so if you only attended one of the two then you may ignore some of the resources here.

This is a living document, and will change with time. Feel free to bookmark this URL and come back at a later time.

Feel free to contact Payod Panda at ppanda@ncsu.edu to report any discrepancy or for further guidance.

The initial templates that we started with

Part 1: go.ncsu.edu/d3_part1

Part 2: go.ncsu.edu/d3_part2

Final version of CodePen codes for the two parts

10/13/2017

Part 1: https://codepen.io/pen?template=eGLGQB&editors=1000

Part 2: https://codepen.io/pen?template=WZgMrP&editors=0010

11/10/2017

Part 1: https://codepen.io/pen?template=RjpLWR&editors=1000

Part 2: https://codepen.io/pen?template=OOpBmg&editors=0010

General web-related learning resources

Beginner

- MDN: Getting started with the Web
  EXCELLENT resource to begin learning. Has modules that cover HTML, CSS, and JavaScript, along with guides on how to handle files and organize folder structures, and how to setup your own web server. Generally, make yourself familiar with the Mozilla Developer Network; they have some of the best documentation on web technologies out on the World Wide Web.
- Dive into HTML5

Intermediate

- MDN: Web technology for developers
  A whole bunch of resources for various web technologies, from beginner to advanced levels. Covers everything from HTML to JavaScript to WebGL and SVG. Includes links to references as well as tutorials. Bookmark this page, this might serve as your bread-and-butter as you develop your chops.
- HTML5 Standard, Developer's Edition
  The full standard / spec stripped of the properties only required for browser vendors. Excellent resource.
- JavaScript: The Good Parts (book)

Advanced

Specs are an excellent way to *really* get to know the open web technologies. They can be a hard read, but if you plan on using these technologies for a living then it is highly recommended that you make yourself familiar with the specs.

- DOM W3C Spec
- HTML5 Spec
- CSS Spec

- Selectors Spec

D3-specific learning resources

- (beginner) Collected tutorials on D3 Wiki

  Very good link to keep bookmarked, LONG list of tutorials on D3 by topic
- (beginner-intermediate-advanced) D3 StackOverflow
- (advanced) D3 API Reference
- (reference) D3 examples on bl.ocks

Cheatsheets

Please refer to resources from the “Learning resources” sections to access the full API references for all languages. The cheatsheets below are a subset of all the functionality afforded by these web technologies, formatted to make it useful for relative beginners.

Common HTML elements

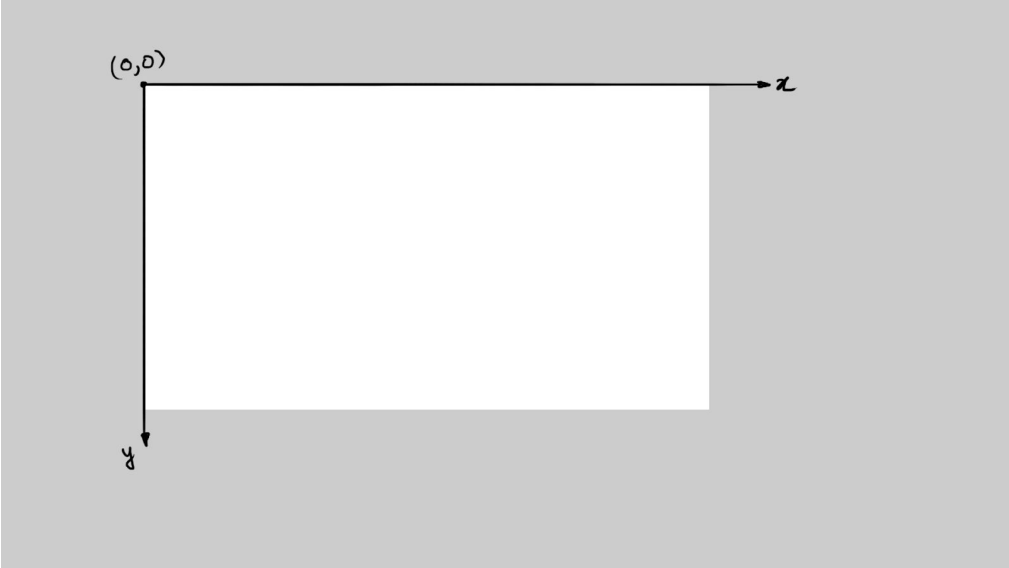
- Sections:
    - <body> </body>
    - <header> </header>
    - <main> </main>
    - <footer> </footer>
    -
- Elements:
    -
    - <h1> </h1>
    - <h2> </h2>
    - <h3> </h3>
    -
    - <img src=”./path/to/image/file.jpg”> </img>
    - <video src=”./path/to/video/file.mp4”> </video>
- External file inclusions:
    - <script src=”./path/to/script”> </script>
    - <link rel=”stylesheet” href=”./path/to/CSS” />

CSS selector types + common CSS properties

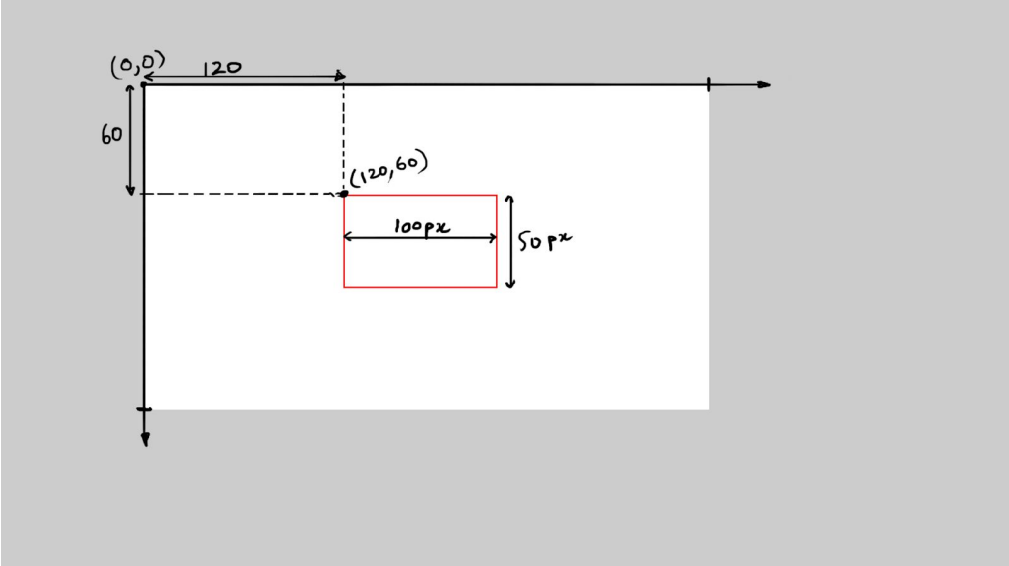
```
/* selecting by using tag name */
h1 {
  font-size: 48px;
  font-weight: bold;
}

/* selecting multiple elements */
h1, h2 {
  font-family: "Consolas", monospace;
}

/* selecting element by its id attribute */
#email {
  float: right;
}

/* selecting element(s) by their class attribute */
.left {
  display: inline-block;
  width: 33.33333%;
}
```

```
/* narrowing (div) selection by additional criteria
(class=”right”) */

div.right {

  float: right;

  width: 66.66666%;

}
```

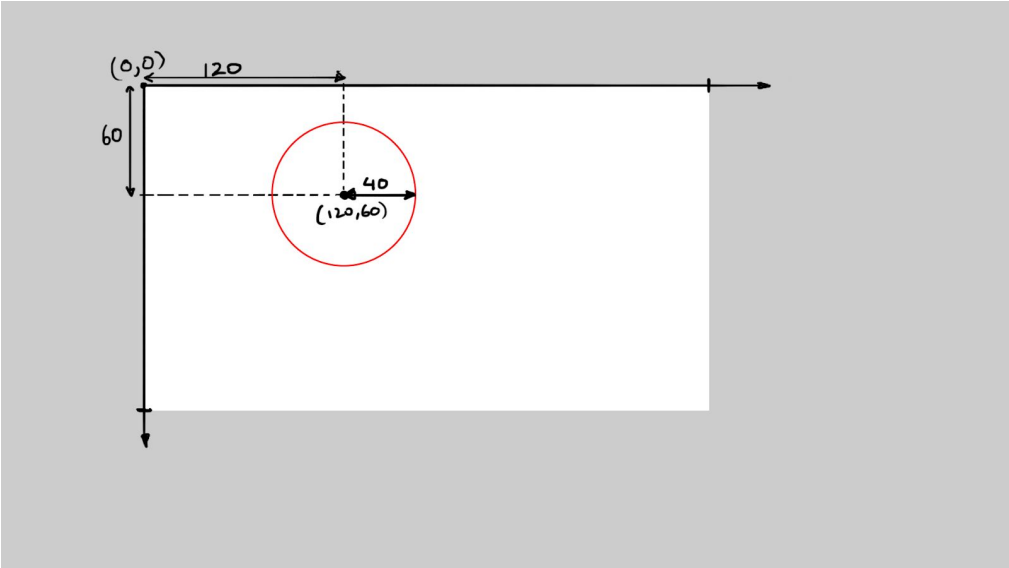
Common SVG elements



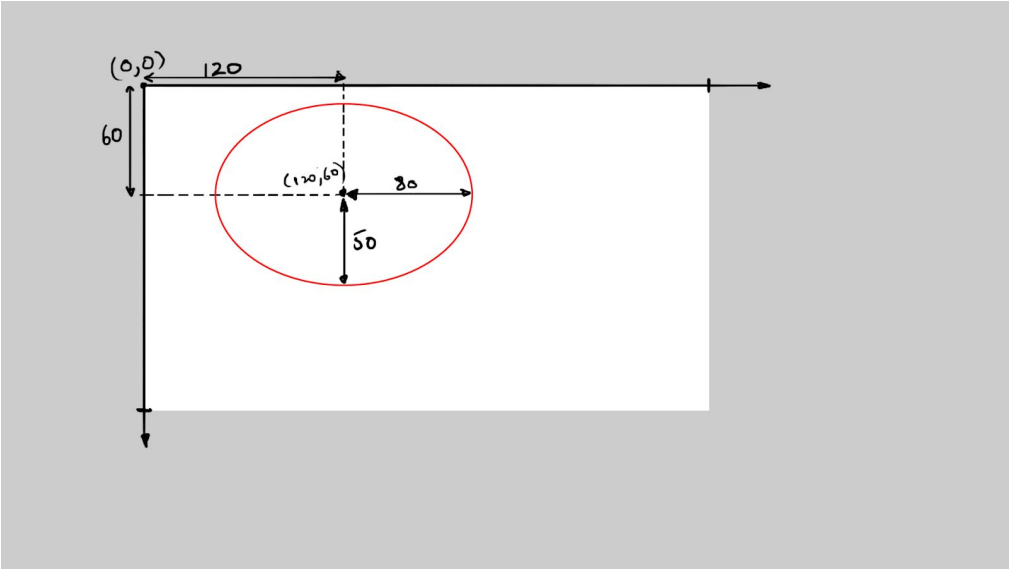

```
<svg width="360" height="180"></svg>
```



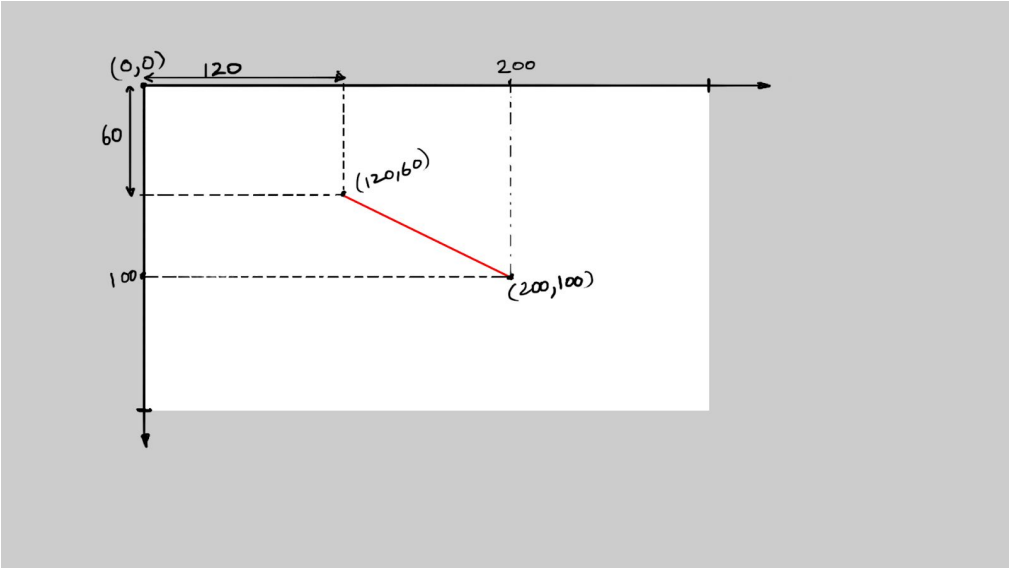

```
<rect x="120" y="60" width="100" height="50" />
```




```
<circle cx="120" cy="60" r="40" />
```




```
<ellipse cx="120" cy="60" rx="80" ry="50" />
```




```
<line x1=”120” y1=”60” x2=”200” y2=”100” />
```

Common d3 methods

- d3.select(*selector*)
  Returns a *selection*. Only first element if selector matches multiple elements.
- d3.selectAll(*selector*)
  Returns a *selection*. Array of elements matching selector evaluation.
- *selection*.append(*element*)
  Returns a *selection* with the appended element.
- *selection*.data(*[dataset]*)
  Returns the update selection
- *selection*.enter()
  Returns the enter selection, needs to be called on the *update* selection (see above) in order to be useful.
  Returns empty selection if the selection called on is not the update selection.
- *selection*.attr(*name[, value]*)
  Returns the original selection after applying specified attribute to it.
- *selection*.style(*name[, value]*)
  Returns the original selection after applying specified CSS style property to it.